

## ABSTRACT

Embodiments of methods and apparatus for creating holograms by producing arrangement of laser-induced damages inside transparent material are disclosed. One or more embodiments of the invention comprise a method for transformation of an interference pattern into arrangement of points so that laser-induced damages created at these points are able to reconstruct high quality holographic image. Other embodiments of the invention comprise a method for creation of small laser-induced damages needed for reproduction of holograms by transforming wavelength of laser radiation generating breakdowns at the predetermined points of transparent materials